# Predictors of motivation to learn when training is mandatory

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## Abstract

Few studies have focused on the individual and organisational factors that predict motivation to learn when training is mandatory. This study addressed the overall predictability of motivation to learn from a range of individual and organisational variables as well as whether organisational commitment mediated the relationships between the other predictors and motivation to learn. Only organisational commitment was able to account for a significant portion of the variance in motivation to learn. The collective influence of work locus of control, perceived benefits of training, negative transfer climate, and supervisor support on motivation to learn was entirely mediated by organisational commitment. Pre-training interventions should focus on enhancing the perceived benefits of mandatory training which may positively influence employees' level of commitment to the organisation and pre-training motivation to learn.

## Introduction

Noe and Colquitt (2002) identified many individual and situational level variables that could influence training motivation, learning outcomes, and transfer of training. Training motivation was defined as the desire on the part of the trainee to learn the content of the training program. The factors that were hypothesised to impact on pre-training motivation included the trainee's level of pre-training self-efficacy, perceived value of the training, personality characteristics, age, and aspects of the work environment. Pre-training motivation to learn was, along with basic skills and ability, proposed as a direct determinant of the trainees' learning outcomes. Mathieu and Martineau (1997) also presented a comprehensive model of the individual and situational determinants of training motivation. In their model, pre-training motivation mediated the influence of other personal characteristics and the work environment on training and transfer outcomes. Therefore, improving trainee's motivation to learn and readiness to benefit from training could be one of the main pre-training interventions that would assist trainees to maximise the benefits they receive from training.

The extent to which trainees are able to participate in decision making about training may have a positive effect. If trainees are consulted about decisions regarding their attendance at training courses, including whether they need to attend, when they need to attend, and what mode of attendance would be most suitable for them, we could expect that they would be more motivated to learn. Studies that have supported the positive benefits of decision making have generally used the choice vs. no choice paradigm (Baldwin & Magjuka, 1997; Quiñones, 1995).

It should be noted that participation in decision-making does not always have a positive impact on trainees' motivation to learn unless the trainees' input is reflected in the training that they receive. Baldwin, Magjuka, and Loher (1991) found that where the trainees' input was not reflected in the training they received, the level of trainees' pre-training motivation decreased as well as the trainees' performance during training.

There are situations in which trainees have no choice in whether they attend training as attendance is mandated by the organisation. An example of this type of training is workplace health and safety training. The focus of this training may be to ensure that employees provide the highest standard of service, and to reduce the risk of injury to both clients and employees. As employees have no choice in whether they attend training that is mandatory, this may result in lower levels of motivation to learn. This study aimed to determine the individual and organisational factors that were the strongest predictors of motivation to learn when training was mandatory. Several potential predictors that have been found to be important in the non-mandatory training context will be described in the following paragraphs and the direction of their expected relationships with motivation to learn.

Predictors of pre-training motivation to learn can include aspects of the work environment and individual factors. Aspects of the work environment

could include support from one's supervisor and peers, situational constraints, and opportunity to use one's knowledge and skills on the job. Mathieu and Martineau (1997) suggested that environmental constraints influence trainees' opportunities to perform their trained tasks and that this could reduce trainees' pre-training motivation. Mathieu, Tannenbaum and Salas (1992) found a negative relationship between situational constraints and training-related motivation. The level of support and encouragement that trainees receive from their supervisors and coworkers could also influence the trainees' levels of pre-training motivation (Facteau, Dobbins, Russell, Ladd & Kudisch, 1995). This could be particularly important when training is mandatory. It was expected that a negative transfer climate would be negatively related to motivation to learn and greater supervisor support would be positively related to motivation to learn.

The value that the organisation places on trainees successfully transferring their training to the workplace could also be an important factor (Facteau et al., 1995). Where there is a perceived lack of management support for the transfer of training or a perception that the transfer of one's training is of little value to the organisation, there is little incentive for trainees to invest the effort required to master the content of the training. Therefore, it is expected that trainees' perceptions of the benefits that they will derive from the training they will receive and their expectations that correct use of skills learned during training will be positively rewarded could be positively related to pre-training motivation to learn. In the situation where training is mandatory, perceptions of the value of training could actually be enhanced as a result of trainees' perceiving that the organisation is placing greater importance on the training.

Other individual factors that could influence pre-training motivation include commitment to the organisation and locus of control. Organisational commitment is the individual's sense of attachment to the organisation and the actions that they take as a result of this attachment (Meyer, Allen & Smith, 1993). Facteau et al. (1995) found that individuals who were committed to the values and goals of the organisation had higher levels of pre-training motivation. Cannon-Bowers, Salas, Tannenbaum and Mathieu (1995) found that organisational commitment was positively related to pre-training performance expectations and training desires, and that all three were positively related to pre-training motivation. Therefore, organisational commitment may be an indicator of trainees' level of readiness to undertake and benefit from training. Low levels of organisational commitment may also be a reflection of the climate existing in the workplace, and the need for improvements to occur at this level. It is expected that organisational commitment will be positively related to pre-training motivation to learn.

Locus of control is another individual variable that has been proposed as a possible determinant of pre-training motivation to learn (Noe & Colquitt, 2002; Thayer & Teachout, 1995). Spector (1988) suggested that locus of control is a personality characteristic that influences beliefs regarding the ability to improve skills, and therefore it should be an important determinant of participation in developmental activities. Noe (1986) described a number of studies that have demonstrated that people with internal locus of control have higher levels of job involvement than people with external locus of control. Other researchers (Tziner, Haccoun & Kadish, 1991) have suggested that trainees with higher levels of internal locus of control and those who perceive their work environment as more supportive of their newly acquired skills would show higher levels of learning and motivation to transfer, more positive reactions to training and greater transfer of their training than those who are more externally oriented in their locus of control and who perceived a less supportive environment. However, Tziner et al. found mixed results with not all hypotheses supported. It is expected that trainees with internal locus of control are more likely to exhibit high levels of motivation to learn, although this relationship may be weaker for trainees in training programs that are mandatory.

## Summary and Hypotheses

The first two hypotheses related to the ability of the individual and organisational factors to predict motivation to learn. It was hypothesised that:

1. higher levels of organisational commitment, a perception of greater training benefits, and a more internal locus of control would predict higher motivation to learn; and that
2. higher levels of supervisor support and lower levels of negative transfer climate would predict higher motivation to learn.

The third hypothesis was that:

3. the relationships between the other predictors and motivation to learn would be mediated (at least partially) by organisational commitment. This hypothesis was based on the recent meta-analysis reported by Parker et al. (2003) which summarised the relationship between individual-level perceptions of organisational climate and work outcomes such as attitudes, psychological well-being, motivation, and performance. Their final structural model showed that work attitudes (such as job involvement and organisational

commitment) fully mediated the relationship between psychological climate and motivation.

## Method

### Participants

The participants in the study were community health workers who were employed in a health care organisation. The participants were attending a mandatory training program that focused on one of the following: manual handling of people, workplace health and safety, CPR, infection control, fire safety, food handling, or medication administration. There were 129 trainees who attended at least one of these courses and completed the pre-training questionnaire.

### Materials

The pre-training questionnaire contained scales that were developed to assess the individual and organisational factors described as influencing Motivation to Learn. The Motivation to Learn scale (Machin & Fogarty, 2004) consisted of nine items that asked trainees to indicate their level of commitment to learning, their perceived importance of training, and the amount of effort they intend to expend toward acquiring new skills and procedures gained from training. Organisational commitment (Facteau et al., 1995) was measured using four items such as "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful" and "I find that my values and the organization's are very similar". Ten items were included to measure situational constraints that hampered trainees' ability to apply training in their jobs, while another 10 items assessed the degree to which trainees perceived support from their supervisor in using the skills and knowledge learned during mandatory training (Facteau et al., 1995). The Work Locus of Control Scale (Spector, 1988) consisted of 16 items, eight of which were reversed scored. Fourteen items were used to assess the potential benefits trainees perceived from participating in mandatory training (Noe & Wilk, 1993). Five items measured personal benefits, six items measured career-related benefits, and three items measured job-related benefits. Cronbach alphas are reported in Table 1.

### Procedure

The participants received the pre-training questionnaire when they first arrived at the training program, and completed it under the supervision of the trainer. The covering letter explained the purpose of the study as well as the steps taken to ensure confidentiality of the data. The participants were also asked to sign a statement of informed consent.

## Results

Table 1 presents the means, standard deviations, Cronbach Alphas and intercorrelations between the variables. An inspection of the correlations contained in Table 1 showed that Motivation to Learn was significantly correlated with all of the predictor variables. In order to assess the relative impact of the predictor variables on Motivation to Learn, it was regressed on the five predictors using standard regression. The results of this analysis are presented in Table 2. Although the five predictors together were able to account for significant variance in Motivation to Learn with $R^2$ = .27, Adj. $R^2$ = .24, $F(5,117)$ = 8.62, $p < .001$, only Organisational Commitment ($\beta$ = .47, $t$ = 4.73, $p < .001$) was found to add significant unique variance to the prediction of Motivation to Learn. This result confirms that Organisational Commitment is the primary predictor of Motivation to Learn. In order to determine whether it mediates the relationships between the other predictors and Motivation to Learn, further regression analyses were performed.

The results of the second regression analysis which regressed Organisational Commitment on the other four predictors are also presented in Table 2. The four predictors together were able to account for significant variance in Organisational Commitment with $R^2$ = .38, Adj. $R^2$ = .36, $F(4,118)$ = 18.01, $p <$ .001, and three of the four predictors were found to add significant unique variance to the prediction of Organisational Commitment: Negative Transfer Climate was the most marginal with $\beta$ = -.16, $t$ = -1.97, $p$ = .05, while Work Locus of Control with $\beta$ = .18, $t$ = 2.23, $p < .05$ was slightly stronger and Perceived Benefits of Training with $\beta$ = .44, $t$ = 5.08, $p < .001$ a much stronger predictor.

A third regression was conducted to confirm that there were other significant predictors of Motivation to Learn if Organisational Commitment was omitted from the predictor set. The other four predictors together were still able to account for significant variance in Motivation to Learn with $R^2$ = .13, Adj. $R^2$ = .10, $F(4,118)$ = 4.39, $p < .01$, although only Perceived Benefits of Training ($\beta$ = .22, $t$ = 2.12, $p <$ .05) was found to add significant unique variance to the prediction of Motivation to Learn. Therefore, it is likely that Organisational Commitment may only mediate the relationship between Perceived benefits of Training and Motivation to Learn, and not the relationships between the organisational climate variables (negative transfer climate, supervisor support) and Motivation to Learn.

Table 1: Means, standard deviations, Cronbach alphas, and intercorrelations for all variables

| Variables | *M* | *SD* | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 1. Motivation to Learn (9 items) | 49.55 | 7.92 | (.96) | | | | | |
| 2. Organisational Commitment (4 items) | 20.11 | 4.37 | .51 | (.91) | | | | |
| 3. Negative Transfer Climate (10 items) | 25.37 | 8.14 | -.24 | -.31 | (.92) | | | |
| 4. Supervisor Support (10 items) | 43.07 | 9.83 | .23 | .45 | -.27 | (.91) | | |
| 5. Work Locus of Control (16 items) | 72.39 | 12.67 | .20 | .24 | -.37 | .27 | (.82) | |
| 6. Perceived Benefits of Training (14 items) | 56.76 | 13.24 | .24 | .51 | -.09 | .49 | -.08 | (.89) |

*Note.* $N$ = 123. Values greater in magnitude than .15, .21, and .27 are significant at .05, at .01, and at .001 respectively. The values on the diagonal are the Cronbach alphas.

Table 2: Regression of Motivation to Learn (and Organisational Commitment) on the five (and then four) predictor variables.

| Predictors | Dependent Variable | | | | | |
|---|---|---|---|---|---|---|
| | Motivation to Learn | | | Organisational Commitment | | |
| | β | *t* | *sr* | β | *t* | *sr* |
| 1. Organisational Commitment | .47 | 4.47*** | .40 | - | - | - |
| 2. Negative Transfer Climate | -.07 | -.80 | -.07 | -.16 | -1.97* | -.18 |
| 3. Supervisor Support | -.02 | -.20 | -.02 | .14 | 1.60 | .15 |
| 4. Work Locus of Control | .07 | .75 | .07 | .18 | 2.23* | .20 |
| 5. Perceived Benefits of Training | .01 | .08 | .01 | .44 | 5.08*** | .42 |
| After all variables were entered: | $R^2$ = .27, Adj. $R^2$ = .24, $F$(5,117) = 8.62, $p$ < .001 | | | $R^2$ = .38, Adj. $R^2$ = .36, $F$(4,118) = 18.01, $p$ < .001 | | |

*Note.* *$p$ < .05. **$p$ < .01. ***$p$ < .001. *sr* = semi-partial correlation.

## Discussion

The first two hypotheses focused on the degree to which individual and organisational factors predicted Motivation to Learn when training was mandatory. The results of the first regression analysis showed that only one of the predictors (Organisational Commitment) was able to account for a significant portion of the variance in Motivation to Learn. The second and third regression analyses addressed the third hypothesis which focused on the extent to which the measure of Organisational Commitment mediated the relationships between the predictor variables and the measure of pre-training Motivation to Learn. The results of the regression analyses demonstrated that only one of the four predictors (Perceived Benefits of Training) was able to explain significant unique variance in Motivation to Learn when Organisational Commitment was omitted from the predictor set and that Perceived Benefits of Training was not a significant predictor when Organisational Commitment was included in the predictor set.

Recent research by Tsai and Tai (2003) with bank employees attending government sponsored training has confirmed that employees who attended training on a mandatory basis showed higher motivation for training than those who attended on a voluntary basis. Further analyses showed that training assignment (mandatory vs voluntary) was a significant predictor of the perceived importance of the training (measured using the same scale used in this study), but failed to account for any significant portion of the variance in pre-training motivation (measured using a different scale to the current study) once perceived importance was included as a predictor. This also confirmed that perceived importance was a mediator of the relationship between training assignment and pre-training motivation. A similar analysis was undertaken with a second measure of motivation that was collected during the training program and the same results were obtained. The current study has extended our understanding of the impact of mandatory training on motivation to learn by demonstrating that the employees' commitment to the organisation mediated the relationship between perceived importance of training and motivation to learn (prior to the commencement of training). It would be useful to extend the current study by collecting further measures of motivation during the training program.

The weak relationships that were found between the other three predictors (Supervisor Support, Negative Transfer Climate, and Work Locus of Control) and Motivation to Learn may indicate, at least for the organisational climate variables, that climate for transfer of training is a more complex and

broader construct that the two variables that were included in this study. Based on earlier work by Rouiller and Goldstein (1993), Thayer and Teachout (1995) suggested two broad categories of variables: antecedents and consequences of transfer. Antecedents, or situational cues, serve to remind trainees of their training or provide them with opportunities to use their training, whereas consequences affect the likelihood that trainees will continue to use their skills.

We suggest that pre-training interventions should focus on improving the individual and organizational readiness to benefit from training. One key strategy that organisations should consider is enhancing the perceived value of the training program by clearly explaining the benefits that trainees' will derive from the training they will receive (such as skill development, opportunities for job redesign, and enhancing workplace health and safety) and reinforcing that correct use of skills learned during training will be positively rewarded. This strategy would enhance the employees' level of commitment to the organisation and positively influence pre-training motivation to learn. Further research is now required to identify the benefits of improving motivation to learn during mandatory training.

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